



Answer **all** questions

### 1 Cluster 1: Geography in Everyday Life

A group of secondary school Geography students went to Pulau Ubin, an offshore island which is also a tourist attraction in Singapore. They wanted to test their hypothesis,

*'More foreign tourists than locals visit Pulau Ubin to enjoy the nature'.*

They took a bum boat ride across to reach Pulau Ubin's jetty. Each bum boat ride can take 12 visitors at a time. At the jetty, they carried out their investigation by interviewing the visitors that reached the island by boat. They used random sampling method to choose the visitors that they wish to interview from each bum boat. Altogether, they interviewed a total of 30 foreign visitors and 30 locals. The students carried out their study once during an afternoon of a weekday and another occasion during the weekend.

**(a)** Describe possible risks that the students may encounter in their investigation.

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**(b)** Describe how the students carried out the simple random sampling method.

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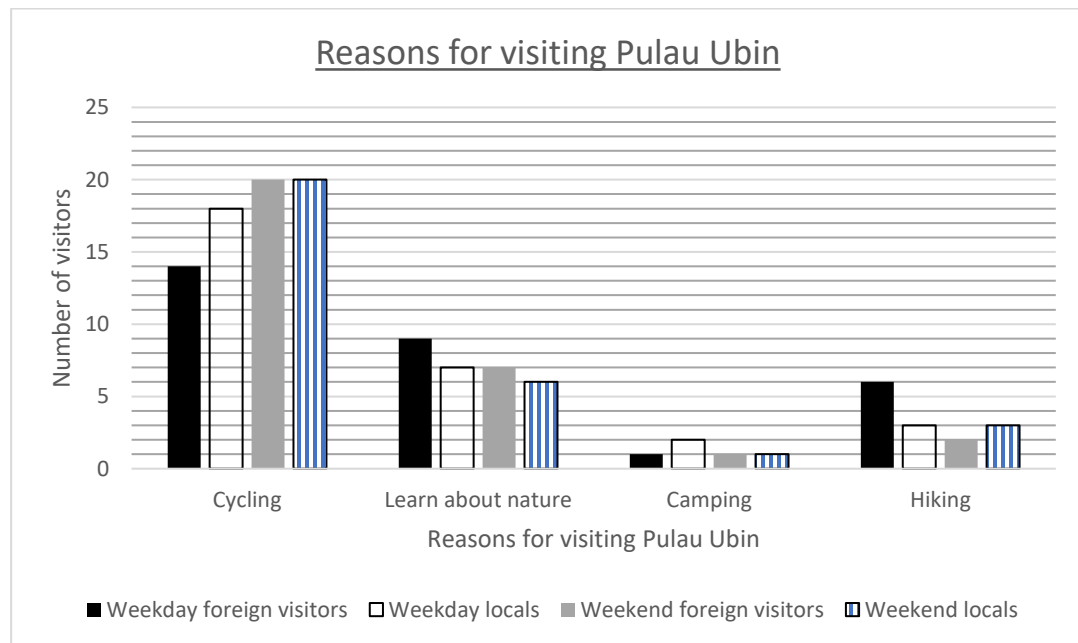
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- (c) The teacher reminded the students that their survey should not comprise closed-ended questions only but also contain a couple of open-ended questions.

Explain why the teacher remind the students as such?

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- (d) The students collated the data they collected and presented their findings in a graphical manner as shown in Fig 1.3.



**Fig 1.3**

- (i) Use Fig 1.3 to compare the reasons for foreign visitors and locals visiting Pulau Ubin.

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- (ii) Describe the situations where the graphical method used in Fig 1.3 is appropriate.

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- (e) In addition to their earlier investigation, the students also wanted to find out the relationship between the distance of the attractions on the island from the main jetty and the number of visitors visiting these attractions. The students hypothesized that the further away the attractions are from the main jetty, the lower the number of visitors visiting them.

For their geographical investigation, they identified the following attractions (their distance from the island's main jetty is given in brackets '[ ]'):

- a) Chek Jawa [3.6 km]
- b) The Malay Kampong [1.2 km]
- c) Maman Campsite [2.3 km]
- d) Teck Seng's Place (operational only during weekends) [0.5 km]
- e) NParks Secret Gardens [0.3 km]
- f) German Girl shrine [2.7 km]
- g) Bukit Puaka [2.1 km]

The group of students decided to carry out their study on a weekday afternoon and the whole day of a weekend. They only stationed themselves at the island's main jetty and carried out their interviews at regular time intervals of 2 hours each. For their sample size, the students decided to interview any 30 visitors they meet at the main jetty.

- (i) Suggest how the students can improve their data collection methods for their investigation.

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- (ii) Study Table 1.4, which shows the data collected by the students during the weekday and the weekend when they stationed themselves at the main jetty.

S/N	Attractions	Distance of attraction from the main jetty [km]	Number of visitors on weekday*	Number of visitors on weekend*
(a)	Chek Jawa	3.6	14	28
(b)	The Malay Kampong	1.2	16	19
(c)	Maman Campsite	2.3	3	9
(d)	Teck Seng's Place (operational only during weekends)	0.5	-	12
(e)	NParks Secret Garden	0.3	17	28
(f)	German Girl shrine	2.7	2	3
(g)	Bukit Puaka	2.1	2	2

**Table 1.4**

\* - The total number may not add up to 30 respondents as some of them may visit more than 1 attraction during their trip.

How far do the data in Table 1.4 support the students' hypothesis?

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## 2 Cluster 2: Tourism

- (a) With the use of an example, explain why the diversity in tourism demand has increased in the recent years.

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- (b) Study Fig 2.1, which shows information about the tourism development of Sitges, a resort area that is located in Spain.

Sitges developed more sustainable strategies to attract more tourists. The resort has been rebranded as an all-year destination with events planned beyond the traditional holiday season. Sitges has also become one of the main destinations for Meetings, Incentives, Conferences and Exhibitions (MICE) tourism in Spain with its specialised hotels catering to the needs of the businesses. In addition, the Sitges Council aims to build upon the earlier role of Sitges as a centre of art and culture by developing activities related to creativity, art and culture. The project will see the development of a state of the art campus with a school of music and dance. These facilities will attract up to 2,000 students a year as well as a further 2000 academic staff at the campus. It has been estimated that each student will spend approximately 750€ per month in Sitges of which 150€ will be on tourist and leisure facilities. Visits by the family and friends of the students to Sitges are expected to add to the use of the town's tourist facilities.

**Fig 2.1**

Using Fig 2.1, explain why tourism development of Sitges is at the rejuvenation stage.

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- (c) Study Figs 2.2 and 2.3, which show information about eco-tourism and community-based tourism.

### Market Growth of Eco-tourism

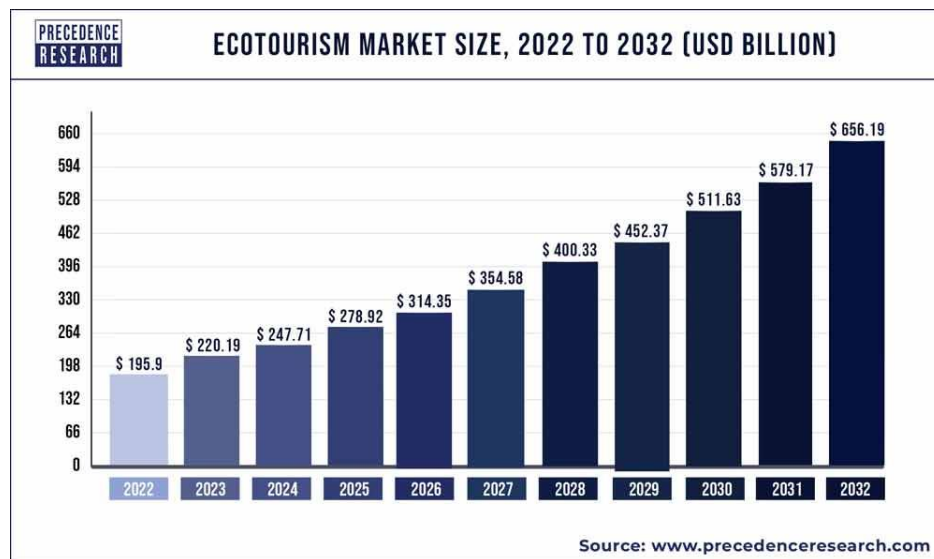


Fig 2.2

### Impacts of Community-Based Tourism

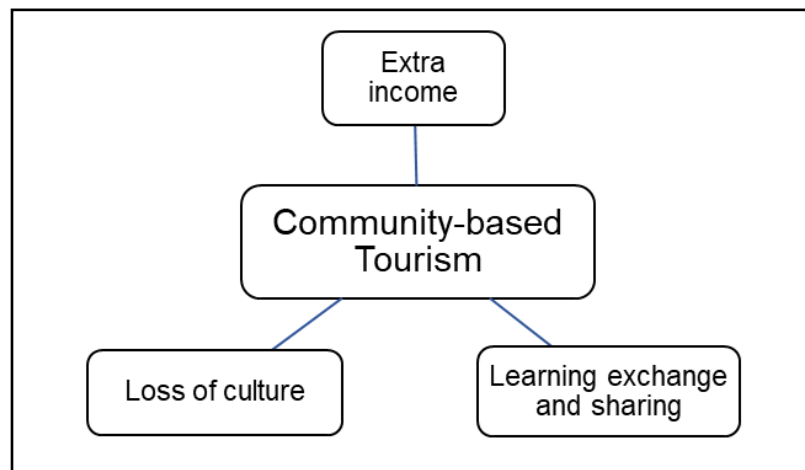


Fig. 2.3

With reference to Figs 2.2 and 2.3, how far do you agree that eco-tourism is more effective than community-based tourism in promoting sustainable tourism development? Explain your answer with the use of examples.

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### 3 Cluster 3: Climate

- (a)** Suggest how the change in climate might impact the aquatic ecosystems in the world.

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- (b) Study Fig 3.1, which shows the excerpt on natural events that happened in Hanoi, a city in Vietnam and Fig 3.2, which shows the location of Hanoi in Southeast Asia.

### Flooding in Hanoi, Vietnam

Hanoi is taking drastic measures to reduce the risk of flooding during the rainy season, said Vo Nguyen Phong, Director of Hanoi's Department of Construction.

Phong said Hanoi had entered the rainy season of 2023, characterized by heavy rainfall, resulting in recurrent flooding of numerous streets in the capital.

North Vietnam's rainy season parallels summer and the beginning of Autumn. During this time, it is hot and sunny with the temperature varying from 28°C to 38°C (sometimes reaching the peak of 40°C), which makes it the hottest rainy season of all.

**Fig 3.1**

### Map of Southeast Asia



**Fig. 3.2**

With reference to Figs 3.1 and 3.2, account for the climatic condition in Hanoi as mentioned in Fig 3.1.

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- (c) Fig 3.3 shows the damages to the environment of a small village in Vietnam due to floods.

### Vulnerability to Climate-related Hazards



**Fig 3.3**

Using Fig 3.3, explain how vulnerability to climate-related hazards resulted in greater climate risk for the villagers.

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- (d) Study Fig 3.4 which shows an advertisement on eating less meat.

**Advertisement to Promote Eating Less Meat**



**Fig 3.4**

Using Fig 3.4, justify the message of the advertisement.

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[illegible]

*Copyright Acknowledgements*

- Fig 2.1 <https://geographyfieldwork.com/ButlerModelSitgesCalafell.htm>  
 Fig 2.2 <https://www.precedenceresearch.com/ecotourism-market>  
 Fig 2.3 Adapted from <https://www.cbi.eu/market-information/tourism/community-based-tourism/market-potential>  
 Fig 3.1 <https://www.bestpricetravel.com/travel-guide/vietnam-rainy-season-1354.html>  
<https://hanoitimes.vn/hanoi-intensifies-measures-to-mitigate-flooding-ahead-of-rainy-season-324490.html>  
 Fig 3.2 <https://cdn.britannica.com/90/183790-050-3B1A1E1C/World-Data-Locator-Map-Vietnam.jpg>  
 Fig 3.3 <https://bbc.com/news/world-asia-37672862> and  
<https://vietnamnews.vn/environment/381617/floods-damage-rice-crops-in-mekong-delta.html>  
 Fig 3.4 <https://greenwashingindex.com/eating-less-meat-can-save-our-planet/>